
Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

WT Docket No. 03-187

In the Matter of

**EFFECTS OF COMMUNICATIONS
TOWERS ON MIGRATORY BIRDS**

**Comments of Cingular Wireless
On Report by Avatar Environmental LLC**

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SUMMARY

The Avatar Report confirms what Cingular and others have said from the outset of this proceeding: the state of the science is insufficient for the Commission to make policy choices regarding avian mortality at communications towers. Ongoing scientific studies must be completed, additional research efforts need to be identified and pursued, and a consensus reached among regulators, the scientific community, environmentalists and the wireless industry before any regulatory action can be contemplated. The Communication Tower Working Group should take the lead in collecting data and identifying needed additional research. In the meantime, the Commission has a clear Congressional mandate to facilitate the rapid deployment of the wireless communication infrastructure that is essential to this nation's security and economic prosperity. It cannot allow speculative concerns about avian mortality to block or delay deployment of the wireless communication infrastructure.

There is one area in which a scientific consensus seems to be emerging that has policy implications for the Commission. There are a significant number of studies and other research that lead to the conclusion that shorter communication towers (less than 500 feet) are involved in few migratory bird deaths. As such, the Commission should not impose any new regulations on the siting of these shorter towers. Additionally, this emerging consensus calls into question some of the USFWS interim tower siting guidelines. For example, the guidelines suggest that tower height be kept below 200 feet in order to avoid FAA marking and lighting requirements. Several studies call into question whether FAA-mandated lighting on shorter towers has any adverse impact on migratory birds. Cingular urges the USFWS to review the emerging science and modify its interim tower siting guidelines accordingly. The USFWS should advise its field offices that they may not impose the voluntary guidelines as *de facto* regulations when reviewing communications tower siting requests.

Despite acknowledging that the state of the science is insufficient to make policy choices at this time, Avatar makes a series of recommendations that would amount to doing just that. Avatar recommends that the Commission modify its NEPA checklist to reflect factors known to be associated with avian mortality "to the extent that information is known at this time." This recommendation is completely inconsistent with Avatar's acknowledgement throughout its report that the state of the science is insufficient to make policy choices and regulatory changes at this time. Avatar also recommends adapting practices from the wind power industry into communication tower siting reviews. Cingular strongly disagrees, and demonstrates the significant differences between the two industries that make it inappropriate for decisions made with regard to one industry to be applied to the other.

The Commission should continue to support the scientific research currently underway and to support additional research as needed and appropriate. However, the Commission should not launch a premature rulemaking proceeding in advance of the science. The Commission recently rejected opposition by bird activists to a public safety tower in Ohio. Similar boiler-plate oppositions have been filed by these same parties against a number of Cingular's towers. The Commission's staff has allowed these applications to languish for over a year. Now that the Commission has rejected the opponents' claims on the merits, the Commission's staff should process these back-logged applications without further delay.

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**COMMENTS OF CINGULAR WIRELESS
ON REPORT BY AVATAR ENVIRONMENTAL LLC**

Cingular Wireless LLC (“Cingular”), through undersigned counsel, hereby comments on the report submitted to the Commission by Avatar Environmental, LLC¹ in the captioned proceeding. The Commission invited comment on the Avatar Report by *Public Notice*, DA 04-3891, released December 14, 2004. By *Public Notice*, DA 04-4021, released December 22, 2004, the Commission extended the comment date to February 14, 2005 and the reply comment date to March 14, 2005.

Avatar correctly observes that the state of the science generally is insufficient at this time to make policy decisions or to adopt rules addressing avian mortality at communication towers. The completion of on-going scientific studies will provide the Commission and other federal agencies with much needed additional scientific information regarding avian mortality at communications towers. As discussed below, in one specific instance the state of the science would allow the Commission to make a finding that short communications towers (less than 500 foot) such as those deployed by CMRS providers are involved in few migratory bird fatalities. While the science is being developed, the Commission must fulfill its primary statutory directive to facilitate the widespread deployment of wireless communications infrastructure in a timely and economical manner

¹ *Notice of Inquiry Comment Review Avian /Communication Tower Collisions* submitted by Avatar Environmental, LLC, EDM International, Inc. and Pandion Systems, Inc. (September 30, 2004) (“Avatar Report”).

by promptly authorizing the construction of communications towers. Neither the Commission nor the U.S. Fish and Wildlife Service (“USFWS”) should delay or restrict the deployment of the wireless communications infrastructure because of unproven concerns about the impact of that infrastructure on migratory birds. The Commission’s staff should promptly process tower applications that are currently backlogged because of “boiler-plate” opposition by bird advocates that the Commission has already rejected.

I. Background.

On August 20, 2003, the Commission released a *Notice of Inquiry* into the Effects of Communications Towers on Migratory Birds. Some 265 parties filed comments and/or reply comments in response to the Notice. Many of these parties cited past scientific papers and studies to support their view as to the impact of communications towers on migratory birds. To assist in its review of the record, the Commission retained Avatar to review selected comments/reply comments “deemed to be of sufficient technical substance to merit a comprehensive evaluation.”² Twelve sets of comments were supplied by the Commission to Avatar for review and analysis.³ Avatar evaluated these comments and the scientific papers cited therein and summarized the record for the Commission.⁴ Avatar also made short-term and long-term recommendations for Commission consideration.

II. Avatar’s Findings.

Because little research had been done on avian mortality at communications towers over the past 20 years, in 1999 the Communications Tower Working Group (“CTWG”)

² Avatar Report § 2.1.1, page 2-1.

³ The joint Cingular/ SBC Comments were among those selected for further review and evaluation. *See* Avatar Report, Table 2-1, page 2-2.

⁴ Avatar looked only at the information provided in response to the Notice of Inquiry and the studies cited in the comments reviewed. Avatar made no independent review of the science. Avatar Report § 1.3, page 1-2.

was formed. Chaired by the USFWS, the CTWG includes interested federal agencies, communications industry representatives, research scientists, conservation organizations and interested private parties. Its Research Subcommittee identifies and facilitates needed research.⁵ Despite the dearth of scientific information available at the time, in October, 2000, the USFWS released voluntary communication tower siting guidelines.⁶ These guidelines were based on “the best information available” at the time.⁷ They were adopted without Notice and Comment and without input from interested parties. As discussed more fully below, these guidelines need to be withdrawn or revamped in light of emerging science.⁸

Two substantive reviews of the scientific literature are contained in the record.⁹ In 2000, Dr. Paul Kerlinger prepared for the USFWS a paper entitled *Avian Mortality at Communications Towers: A Review of Recent Literature, Research and Methodology* (“Kerlinger 2000”). In response to the Notice of Inquiry, the Cellular Telecommunications & Industry Association, PCIA: The Wireless Infrastructure Association, and the National Association of Broadcasters jointly retained Woodlot Alternatives, Inc. to review and evaluate the existing scientific literature to determine what is, and is not, known about the effects of communications towers on avian mortality (“Woodlot”). Both papers confirm

⁵ Avatar Report, page 3-2.

⁶ U.S. Fish and Wildlife Service *Interim Guidelines for Recommendations on Communications Tower Siting, Construction, Operation, and Decommissioning*, available at <http://migratorybirds.fws.gov/issues/towers/comtow.html>. Avatar Report page 3-2. Avatar notes the debate between communications companies and the USFWS as to the voluntary nature of the guidelines. As Cingular and SBC demonstrated in their Reply Comments in this proceeding, the USFWS itself recognized at the time that there was no scientific basis for promulgating anything more than “guidelines” that are “interim” and “voluntary”. Cingular/SBC Reply Comments at 10-11. Any attempt to mandate compliance with the guidelines by USFWS regional offices is illegal, as discussed below.

⁷ Avatar Report, page 3-2.

⁸ In its *Migratory Bird Mortality* (Jan. 2002) report, the USFWS acknowledged additional research is necessary and until that research is done, USFWS cannot recommend against building new towers because “the cumulative impacts of collisions on bird populations . . . are currently unknown.”

⁹ Avatar Report, page 3-3.

the absence of sufficient science to make policy conclusions about avian mortality at communications towers. The Avatar report notes that the conclusion of ongoing studies will expand our understanding of this subject.¹⁰

The Avatar Report does not address the relative significance of avian mortality at communications towers with other human-induced causes of bird kills.¹¹ Avatar does not explain or justify this omission. Avatar acknowledges that *Woodlot* contains data regarding the relative significance of bird mortalities from other human-induced causes, *i.e.*, collisions with buildings, vehicles, power lines, wind turbines, effects of cat predation and hunting.¹² Cingular/SBC also cited and roughly quantified the relative significance of various human activities on migratory bird populations.¹³ As noted in Cingular/SBC Reply Comments, Dr. Kerlinger estimates that communications towers are responsible for less than one percent of all bird fatalities.¹⁴ *Woodlot* places the number even lower—0.42 percent of human caused mortality and only 0.05 percent of total bird populations.¹⁵ The Commission cannot make policy judgments to impose mitigation requirements on communications towers knowing that, in context, communications towers have a miniscule impact on avian mortality compared with other human activities and natural mortality. Avatar's failure to consider this issue in context is unfortunate.

Avatar recommends the development of standardized methods and metrics for analyzing the extent of bird mortality at communications towers. Cingular concurs. The absence of standard methods and metrics in the historical record makes any comparative

¹⁰ Avatar Report, page 5-5.

¹¹ Avatar Report, pages 3-3, 3-4.

¹² Avatar Report, pages 3-22, 3-23.

¹³ Cingular/SBC Comments at 3.4.

¹⁴ Cingular/SBC Reply Comments at 12.

¹⁵ *Woodlot* at 14.

analysis of prior studies problematic. The Avatar Report notes the importance of “negative evidence”, i.e., “it is just as important to record towers of certain height, configuration, lighting regime, and habitat that have not reported bird mortality.”¹⁶ Avatar correctly observes that limiting tower monitoring to only those towers associated with known collisions may prevent the collection of important information that may be useful in minimizing future collision risk at certain tower sites.¹⁷

Avatar notes that the literature confirms that over the last five decades of monitoring, the number of bird mortalities at communications towers is declining while the number of towers is increasing. “All long term studies show a similar decline in total bird mortality (with other factors remaining equal, i.e., tower height).”¹⁸ Reasons for this phenomenon are speculative, and Avatar recommends additional research. If, as some researchers believe, birds become habituated to avoid communication towers, the need for regulatory intervention is reduced.¹⁹

The *Notice of Inquiry* sought technically supportable information regarding the role of specific factors that may increase or decrease the incidence of avian collisions at communications towers. Factors identified in tower collision research include: migration patterns and seasonality; bird behavior; tower height and configuration; tower siting; tower lighting and weather.²⁰ Avatar reports a consensus among respondents that more information is needed to identify specific factors associated with avian mortality at towers and the degree that each of these factors contributes to collision risk.²¹

¹⁶ Avatar Report § 3.2.1, page 3-11.

¹⁷ *Id.*

¹⁸ Avatar Report § 3.2.4, page 3-15.

¹⁹ *Kerlinger 2000*, page 23.

²⁰ Avatar Report § 3.3, page 3-17.

²¹ Avatar Report § 3.3.1, page 3-19.

The scientific record regarding migration patterns and seasonality shows that the number of bird mortalities at communications towers increase during the fall and spring migration periods, with higher numbers in the fall. The studies suggest that the higher number of fall collisions is a result of the number of young birds from that year's breeding and the greater prevalence of advancing frontal systems. Clearly, additional study is needed to draw additional conclusions on this topic.²² Cingular concurs that additional research on seasonality as a factor in avian mortality at communications towers is needed before any policy decisions can be made.

Avatar asserts that it may be premature to assume that shorter towers (500 feet or less) present a lower collision risk and result in fewer bird mortalities than taller towers.²³ Cingular disagrees. The Avatar Report cites several studies demonstrating that virtually all massive bird kills occur at towers exceeding 500 feet in height, while towers below that threshold are involved in very few bird deaths. Kemper (1996) states that a six year survey from 1949-1955 of a 500 foot television tower in Eau Claire, Wisconsin reported no notable findings of bird mortality. When a 1,000 foot tower was erected adjacent to the 500 foot tower in 1957, the first mass bird kill at the site was recorded. The 500 foot tower was later removed, but the 1,000 foot tower continued to be involved in significant bird kills, reporting 121,560 bird deaths of 123 species over a 38-year period through 1995.²⁴

Avatar also discusses the 29 year study cited by Crawford and Engstrom (2001) at a northern Florida tower at the Tall Timbers Research Station beginning in 1955. Surveys were conducted almost daily until 1983. In early 1960, the existing 669-foot tower was replaced with a 1,010-foot tower. In 1989, the tower was shortened to 295 feet. As Avatar

²² Avatar Report, page 3-29.

²³ Avatar Report § 3.3.4.1, page 3-34.

²⁴ Avatar Report § 3.3.4.2, page 3-34.

notes: “this long-term study of three tower heights at the same location provided a unique opportunity to compare avian kills with tower heights, while controlling for other variables.”²⁵ Crawford and Engstrom report that there was not a significant difference in avian mortality when comparing the 669-foot and 1010-foot tower heights, but there was a two order of magnitude reduction in bird deaths after the tower was shortened to 295 feet.²⁶ From this data, the authors concluded that towers 300 feet and less pose little significant threat to migrating birds.²⁷

Another study cited by Avatar was Manuwal (1963). In that Indiana study, minimal bird mortality was reported for three television towers from 350 to 450 feet in height. In July, 1962, a 1,070-foot tower was erected nearby. “Significantly higher” mortality was reported for this site starting in the fall of 1962.²⁸

In opening comments in this docket, Cingular/SBC asserted that there was no scientific evidence that communications towers shorter than 400-500 feet are involved in the death of more than a few migratory birds. Avatar dismisses Cingular’s comments as being “without documentation” and claims “no supporting information was provided.”²⁹ Avatar’s assertions are inexplicable. Cingular/SBC specifically discussed the Crawford and Engstrom study described above to support its conclusion. Cingular also cited *Kerlinger 2000*. Based on his review of the scientific literature, Dr. Kerlinger concluded that there is little evidence that towers less than 400-500 feet in height are involved in the deaths of more than a few birds.³⁰

²⁵ Avatar Report § 3.3.4.2, pages 3-34, 35.

²⁶ Avatar Report, page 3-35.

²⁷ *Id.*

²⁸ *Id.*

²⁹ Avatar Report § 3.3.4.5, page 3-39.

³⁰ Cingular/SBC Comments at 10, citing *Kerlinger 2000* at 22.

As noted above, Avatar limited its analysis to the record in this proceeding which was developed in 2003. The Commission has before it in other dockets later evidence that supports the conclusion that short communications towers pose little if any risk to migratory birds. In FCC File No. A0147567, the Commission staff sought information from AT&T Wireless (“AWE”) concerning a 229-foot tower located near the town of Naalehu, Hawaii. AWE retained Dr. Paul Kerlinger to evaluate the risk posed to seabirds by this tower. In a report dated June 4, 2004, Dr. Kerlinger made these findings regarding the risk that a 229-foot tower poses to birds:

Height. Towers in excess of 500-600 feet AGL present much greater risk to birds than do towers shorter than that height. Towers taller than 500-600 feet have been demonstrated repeatedly to be involved in large-scale fatality events that involve dozens to hundreds of birds in a single night. Shorter towers, especially those below 400 feet have, almost never, been involved in such events. Exceptions do occur, almost exclusively when the shorter towers are accompanied with spotlights, sodium vapor lights, or other bright lights (see below). Towers less than 400 feet kill relatively few night migrating birds and towers less than 200 feet seem to kill even fewer. Studies of guyed (and unlit) 164 and 197 foot tall meteorology towers at wind power sites at many sites in the United States reveals that very small numbers of birds are killed at towers of that height.

A critical study showing the importance of the height of guyed communication towers as a prime risk factor was published by Crawford and Engstrom (2001). At a site in northern Florida, a team of biologists studied a 1,000 foot tall, guyed and multiple-lit (red lights) communications tower for more than 20 years. The tower was known to kill more than 1,000 birds per year in many years until height was reduced to 308 feet. At that height, the tower was still guyed and lit, but following the height reduction, large scale fatality events ended and the number of birds killed were reduced by something on the order of 90-98+% per year. This tower is one of the most intensely studied towers in the world, providing the best comparative study that shorter towers, even when located in the same place as a tall tower known to kill large numbers of birds, have much less impact on night-migrating birds.³¹

³¹ Kerlinger, “Assessment of Collision Risk to Newell’s Shearwater and Hawaiian Petrel at an AT&T Wireless Telephone Tower in Hawaii” (June 4, 2004), filed in FCC File No. A0147567 (2004), second unnumbered page.

In the same report, Dr. Kerlinger discussed the preliminary results from the Michigan Public Safety Tower Study which he is co-directing and which is currently underway.

A study of the Michigan State Police Communication System currently being conducted by Dr. Joelle Gehring and the author of this report, revealed that searches conducted after 20 nights of migration in autumn 2003 under three 475 foot unguyed, lattice communication towers, not a single bird was found. During the spring of 2004, after 20 nights of migration at 6 unguyed towers, about five dead birds were found. . . . Some of the fatalities reported by Gehring may not have been a result of collision. Despite the fact that unguyed towers are widely distributed and frequently visited, they rarely, if ever, are likely to kill birds.³²

Avatar has been too cautious in asserting that “it may be premature, then, to assume that shorter towers present a lower collision risk and result in fewer bird mortalities.”³³ All of the comparative studies done to date support the conclusion that shorter communications towers pose little risk to migratory birds. Those who seek to impose restrictions on short communications towers in the name of protecting migratory birds bear the burden of demonstrating a causal connection between those towers and bird mortality. As Dr. Kerlinger notes, there is not a shred of scientific evidence supporting such restrictions. The Commission cannot on this record make any policy choice to impose restrictions on short communications towers based on potential impact to migratory birds, and, as discussed below, the USFWS should reconsider its voluntary tower siting guidelines in light of the emerging science.

The Avatar Report notes that there is insufficient evidence to support conclusions regarding the impact of tower siting on migratory birds. This fact was conceded by the USFWS, which cited ongoing studies as a source for future guidance on tower siting

³² *Id.*, third unnumbered page [citations omitted].

³³ Avatar Report § 3.3.4.1, page 3-34.

issues.³⁴ Cingular agrees that the state of the science regarding tower siting is insufficient to inform public policy choices by the Commission or the USFWS. This simply reinforces Cingular's view that the USFWS tower siting guidelines are, and must remain, strictly voluntary. To the extent that the emerging science shows that individual guidelines are unnecessary or incorrect, they should be amended or withdrawn.

Avatar reports that there is universal agreement that more research is needed into the impact of tower lighting on migratory birds. While there are a number of studies indicating that migratory birds are attracted to lit towers during inclement weather, Avatar concedes that "no firm conclusions could be drawn based on the existing literature regarding the importance and effects of lighting color, duration, intensity, and type (e.g., incandescent, strobe, neon or laser) on bird attraction...."³⁵ Cingular agrees. There are a number of ongoing studies looking at the impact of various lighting regimes on migratory birds. Until this research is completed, there is no reason to assume that the existing FAA lighting requirements are causing an adverse impact on migratory birds. Once the ongoing research is completed, the CTWG should evaluate the results and make consensus recommendations to the FAA. There is no need for FCC action regarding tower lighting requirements at this time. As Avatar notes, the USFWS concedes in its comments that the current lighting recommendations in its voluntary interim guidelines are based on limited research.³⁶

Avatar reports that the literature supports viewing weather as a factor in bird mortality. Most of the moderate to large bird kills at tower sites have occurred during or following a storm event or frontal system, particularly during migration periods. While

³⁴ Avatar Report § 3.3.5.5, pages 3-41,42.

³⁵ Avatar Report § 3.3.6.4, page 3-47.

³⁶ Avatar Report, page 3-48.

these studies suggest a direct correlation between bird collision risk and weather events, the extent or degree of this association and how other factors may influence mortality rates is unknown. Avatar is correct; there is a need for additional information on the how weather patterns influence the risk of bird collisions.³⁷ There is no basis in the scientific literature at this time to make policy choices based on the existing state of the science.

The Avatar Report discusses the term “biological significance” which it defines as “any mortality that is of sufficient magnitude and importance that it causes the viability of a particular population or species to be affected.”³⁸ Avatar asserts that the “magnitude of an effect may be considered high when a large number, percentage or proportion of a population is affected and low when the converse is true.”³⁹ It then incongruously asserts that “precise population estimates are not needed to assess whether an impact is significant.”⁴⁰ It acknowledges the estimates presented in the *Woodlot* report that the estimated 4 million bird deaths at communications towers represents only 0.42% of human-caused mortality and only about 0.05% of the total migratory bird population.⁴¹

Applying Avatar’s definitions of “magnitude” and “biological significance” requires a finding that the level of avian mortality at communication towers is not biologically significant for migratory birds as a whole. Cingular agrees with Avatar that “it is fundamentally difficult to demonstrate for many species that any ‘particular’ kind of stress causes a reduction in migratory bird population size.”⁴² However, absent a demonstration that communication towers pose a biologically significant risk to a specific

³⁷ Avatar Report § 3.3.7.2, page 3-52.

³⁸ Avatar Report § 3.5.4, page 3-66.

³⁹ Avatar Report § 3.5.1, page 3-62.

⁴⁰ Avatar Report § 3.5.4, page 3-66.

⁴¹ Avatar Report § 3.5.2, page 3-63.

⁴² Avatar Report § 3.5.4, page 3-66.

species or populations, there is no scientific basis to restrict the construction of the wireless communications infrastructure.

III. Avatar's Recommendations.

Despite acknowledging that the present state of the science is insufficient to justify policy choices by the Commission, Avatar presents a series of short-term and long-term recommendations to the Commission. Cingular will discuss these recommendations below.

A. Research Oversight.

Avatar recommends that the Commission continue to participate in the Communication Tower Working Group and monitor and provide comments where appropriate on proposed research projects.⁴³ Cingular concurs that the CTWG Research Subcommittee should serve as the lead group in collecting scientific research as ongoing studies are completed, serving as a clearing house for data review, and recommend additional studies as indicated by the data. The CTWG contains a cross-section of federal agencies, industry representation, the scientific community and environmental organizations, and is in a unique position to build consensus as to what mitigation actions, if any, are warranted by the emerging science. The Commission should acknowledge that other federal agencies, such as the USFWS and the FAA, have primary responsibilities in this area.

Avatar recommends that the Commission review results of six ongoing studies as they become available and incorporate relevant results and conclusions into review of FCC tower applications.⁴⁴ Cingular agrees that to the extent that ongoing studies result in

⁴³ Avatar Report, Table 5-1, page 5-4.

⁴⁴ Avatar Report, Table 5-1, page 5-5.

scientific consensus on the impact of certain tower characteristics on migratory birds, the Commission should incorporate that knowledge into its rules. The contrary is also true. To the extent that the existing studies show that certain tower characteristics do not impact avian mortality (tower height less than 500', FAA-mandated lighting, etc.) the Commission should not require tower owners to continue to evaluate specific sites or to undertake unnecessary and expensive mitigation efforts.

B. Standardized Methods and Metrics.

Avatar recommends that the Commission initiate dialog with applicable research entities and the telecommunications industry to identify the most appropriate approach and mechanism to develop standardized methods and metrics for data collection and monitoring. From these efforts, Avatar recommends the production of a comprehensive guidance document with input from applicable research entities and the telecommunications industry.⁴⁵ Standard methods and matrices should be developed to facilitate comparative studies. However, the FCC has no expertise in this area. As Avatar recommends, the CTWG Research Committee should develop standard study methods and matrices. The CTWG has broad representation from the scientific community, affected governmental agencies, industry and environmental groups. The standard methods and matrices should reflect a consensus of these stakeholders.⁴⁶

The standard methods and metrics should be incorporated into a guidance document in order to standardize research approaches and facilitate problem resolution

⁴⁵ Avatar Report, Table 5-1, pages 5-5,6.

⁴⁶ The National Wind Coordinating Committee ("NWCC") was formed in 1994 to support the development of an environmentally, economically, and politically sustainable commercial market for wind power. The NWCC is comprised of representatives from the utility, wind industry, environmental, consumer, regulatory, power marketer, agricultural, tribal, economic development, and state and federal government sectors. NWCC is a consensus based collaborative which defines "consensus" as "all can live with." Cingular recommends that a similar definition of "consensus" be employed by the CWTG.

relative to avian mortality at tower sites. The CTWG Research Subcommittee should take the lead in developing such a guidance document. Cingular agrees with Avatar that any such guidance document should include standardized monitoring methods that account for study biases.

C. Tower Lighting.

Avatar states, based on the existing literature, that no firm conclusions can be drawn regarding the importance of different lighting colors, durations, intensities, and types (incandescent, strobe, neon or laser) on bird attraction to communication towers. It notes that a number of research investigations are underway, and recommends continued research in this area. The results of this research need to be incorporated into any recommendations for tower lighting.⁴⁷ The ongoing research into tower lighting on avian mortality should be concluded and the results incorporated into tower lighting instructions. This, however, is the province of the FAA, and must be considered in the context of the FAA's primary directive to promote aviation safety.

D. Data Gaps and Research Needs.

Avatar acknowledges that present studies do not establish the degree of impact that mortality at towers has on migratory and resident bird populations. It suggests that the Commission provide guidance on the need for both comparative studies and studies investigating the factors contributing to mortality.⁴⁸ Comparative studies are needed, but, even still, there are valid conclusions that can be drawn from the existing research. The sheer numbers of birds killed by human activity other than communication towers demonstrates that towers are a minor factor in avian mortality, and as a result have little

⁴⁷ Avatar Report, Table 5-1, page 5-8.

⁴⁸ Avatar Report, Table 5-1, page 5-9.

impact on resident bird populations.⁴⁹ The estimated 4-5 million birds killed at communications towers is dwarfed by the estimated 381 million to 2.3 billion birds dying from other human-caused factors, such as collisions with windows and buildings, vehicle collisions, wind turbines, transmission lines, pesticides and oil pollution, cat predation, and hunting. This estimate does not include the far more serious impact on migratory birds caused by habitat destruction. The Commission should keep this context in mind before adopting measures that would raise the cost or slow the deployment of wireless communication services to the American people.

E. Other Research Efforts.

Avatar recommends additional research into why some species seem more susceptible to tower collisions and how losses of these species could be reduced. It also recommends that baseline information be gathered on bird densities, movements, altitudes, and behaviors during migration in proximity to tower sites. It recommends additional research into bird vision, particularly among nocturnal neotropical migrants. It recommends that during tower monitoring information be collected not only on mortality, but also abundance and any behavioral avoidance exhibited by birds attempting to avoid collisions. It also suggests additional research on mitigation measures.⁵⁰ Cingular supports additional research that may lead to reduced avian mortality at communication towers. The CTWG Research Subcommittee should consider Avatar's recommendations as it plans future research efforts. Cingular supports the study of mitigation devices at communications towers, but agrees with Avatar that flapper-type devices would primarily

⁴⁹ See Avatar Report at page 3-23, acknowledging that Woodlot estimates that avian mortality at communications towers represents only 0.05 percent of the annual migratory bird population.

⁵⁰ Avatar Report, Table 5-1, pages 5-9 though 5-12.

target diurnal birds and would not likely reduce the collision risk for nocturnal migrants.⁵¹ Since most reported bird kills at communications towers occur at night during inclement weather, the efficacy of visual mitigation devices is questionable.

F. Biological Scoping and the FCC NEPA Checklist.

Avatar recommends that the Commission develop a more specific set of National Environmental Policy Act (NEPA) biological scoping issues for the Commission's Environmental Assessment Checklist. Avatar recommends that the checklist reflect factors that are known to be associated with avian mortality to the extent that information is known at this time.⁵² Cingular's problem with this recommendation is that Avatar acknowledges throughout its report that the science currently is insufficient to make policy choices. The Commission should not modify its NEPA checklist until the science clearly supports the requested modification. If scientific consensus is reached regarding factors that may have a causal connection to avian mortality and that are susceptible to reasonable mitigation methods, the Commission should proceed by rulemaking to make any needed modifications to the NEPA checklist at that time. The Commission should not repeat the mistake made by the USFWS in promulgating "voluntary" guidelines in advance of the science. As discussed below, the USFWS "voluntary" guidelines are being abused by certain USFWS field offices. The Commission must avoid a "Ready, FIRE, Aim" approach to changing its NEPA checklist.

G. USFWS Interim Guidelines.

Avatar recommends that the Commission "provide a vital role in readdressing the [USFWS] voluntary guidelines to eliminate some of the confusion regarding their

⁵¹ Avatar Report, page 4-11.

⁵² Avatar Report, Table 5-1, pages 5-12, 13.

voluntary implementation by providing comment on those components where more research is needed before definitive recommendations are proposed.”⁵³ The Avatar Report acknowledges that the USFWS voluntary guidelines contain internal inconsistencies.⁵⁴ Cingular concurs that if scientific consensus is reached, the results should be incorporated into USFWS voluntary guidelines. This includes “negative” findings. If, as seems likely, the ongoing research shows that short communications towers do not result in significant avian mortality, whether unlighted or with FAA-approved lighting, the USFWS guidelines should be amended to remove the guideline calling for towers less than 199’ to avoid FAA lighting. Cingular also agrees with Avatar that the USFWS should revise its guidelines to remove internal inconsistencies. It is not clear, however, what role Avatar sees for the Commission in this process, other than avoiding giving the USFWS guidelines more weight than they deserve in the tower siting registration process.

Individual USFWS field offices are trying to mandate compliance with the “voluntary” guidelines.⁵⁵ USFWS guidelines are simply that—they have no binding effect. They were not adopted using APA notice and comment procedures. They contain internal

⁵³ Avatar Report, Table 5-1, page 5-13.

⁵⁴ Avatar Report Table 5-1, page 5-13: “Some of the NOI responses indicted that some of the specific guidelines might be in conflict with each other. For example they cite, limiting tower height <200 feet may be unattainable in certain areas. They state difficulty of collocating multiple carriers’ antennae while minimizing tower height. They also state that keeping towers <200 feet will likely require a greater number of towers, which is in opposition to the USFWS guideline recommending minimizing the number of towers.”

⁵⁵ For example, in 2004 a Cingular contractor received a letter from a USFWS field office that attached a copy of the guidelines and stated “...please advise us of the final location and specification of the proposed tower and which of the measures recommended for the protection of migratory birds were implemented. If any of the recommended measures cannot be implemented, please explain why they were not feasible.” This is one of several letters from USFWS field offices seeking to impose the voluntary guidelines as part of the USFWS review of tower siting proposals. Another field office requires a submission package containing: reasons for not collocating on existing towers, including RF coverage maps; a description of average meteorological conditions; average diameter at breast height and types of trees in the area; efforts to determine whether or not bird roosts or rookeries are present; distance to nearest wetland; measures implemented to minimize impacts to migratory birds; measures to determine the presence of threatened and endangered species, and detailed lighting information (color, heights, under what conditions the colors change, strobe frequency). Cingular’s consultant estimates that these requirements add approximately one week to every NEPA review in that field office and will require lengthy site visits in all cases to complete the package.

inconsistencies that make them inappropriate for mandatory application. The self-help actions by individual USFWS field offices are not based on science and are increasing the cost and delaying the roll out of service to wireless customers. The USFWS should promptly advise its field offices that they may not impose requirements on communications providers under the authority of the “voluntary” guidelines.

Avatar recommends that the Commission adapt the USFWS Potential Impact Index for wind turbines to communication towers, including “pre-construction site analysis and pre- and post-construction monitoring.”⁵⁶ Cingular strongly disagrees with this recommendation. The USFWS Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines was issued on May 13, 2003. The wind turbine guidelines apply to large-scale developments of wind turbine farms that may involve dozens or hundreds of individual turbines aligned over a significant geographical area. The wind turbine guidelines clearly are not adaptable to small, scattered projects such as communication towers. For example, the guidelines require the assembly of a pre-construction site evaluation team consisting of federal and/or state wildlife biologists, academic and industry wildlife professionals as available. “Any site evaluations conducted by teams that do not include Federal and/or State agency wildlife professionals will not be considered valid evaluations by the Service.”⁵⁷ The suggestions in the wind turbine guidelines are clearly inapplicable to the communications industry, would be gross over-kill, and the cost of applying such guidelines to communications towers would be prohibitive.

⁵⁶ Avatar Report, Table 5.1, page 5-14.

⁵⁷ USFWS “Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines” page 2.

The USFWS wind turbine siting guidelines are strictly voluntary, and the USFWS indicated that it would review the results of the guidelines two years after their issuance, which will be due in May, 2005. It would be inappropriate to even consider the wind turbine guidelines until the USFWS review is completed and formal action is taken with regard to their adoption.

The Commission should not rely on data collected in connection with the wind turbine industry.⁵⁸ At the end of 2003 there were about 12,000 turbines installed in the United States, two-thirds of which are in California, compared with hundreds of thousands of wireless communications towers scattered across the country. The turbines are generally installed in massive wind turbines farms, whereas communication towers are mostly individually sited. The vast majority of turbines outside of California are in the desert southwest and the Great Plains. Most of the studies of avian mortality at communication towers have been east of the Mississippi.⁵⁹ This geographical factor alone would limit the value of extrapolating wind turbine data to communication towers. In addition, the species most generally affected at wind turbines varies significantly from those at communication towers. Wind turbines seem to present relatively higher risk to raptor species (hawks, golden eagles, falcons and owls), whereas communication towers appear to disproportionately affect night-migrating songbirds (vireos, thrushes, warblers, and finches).⁶⁰ Furthermore the mechanism of death (collision with spinning wind turbine blade versus impact with stationary tower) is different between the two industries.⁶¹ There

⁵⁸ See, generally, NWCC, "Wind Turbine Interactions with Birds and Bats: A Summary of Research and Remaining Questions, Fact Sheet Second Edition (Nov. 2004) (*NWCC Fact Sheet*).

⁵⁹ Avatar Report § 3.3.1.2, page 3-21.

⁶⁰ Compare *NWCC Fact Sheet* at page 2 with Avatar Report at § 3.3.7.2, page 3-50.

⁶¹ One irony between the two industries is that the wind power industry is moving to taller and fewer turbines to minimize the impact on wildlife, whereas bird activists are pushing for shorter (and hence more) communication towers to achieve ostensibly the same result.

is simply no basis to assume that data from the wind turbine industry would provide valuable insight for the communication tower industry.

IV. Avatar's Recommendations Ignore the Commission's Statutory Mandate and Avatar's Own Findings.

Avatar does not acknowledge that the Commission's primary responsibility under the Communications Act is to facilitate the deployment of wireless communications infrastructure so that the American people can enjoy the benefits that wireless services provide.⁶² The Commission's NEPA responsibility is secondary to its Communications Act responsibility, and must give way in the event of a conflict.⁶³ While the Avatar Report contains a general caveat that its review was limited to scientific and technical information contained in the record and not with the jurisdictional, legal and policy aspects of the comments, the recommendations made by Avatar cannot be evaluated without considering the Commission's primary Congressional directive.⁶⁴ Thus, Avatar makes recommendations in a vacuum, divorced from any cost/benefit analysis or consideration for the potential delay in deploying wireless infrastructure with its concomitant impact on public health and safety, homeland security and the economic well-being of the country. The Commission should limit its reliance on the Avatar Report to its recommendations about the existing state of the science and the need for additional research. The Commission cannot credit Avatar's policy recommendations (e.g., modifying the NEPA checklist, adapting regulations from the wind power industry) because the Avatar Report did not consider the legal, jurisdictional, and Congressional mandates that must inform the Commission's policy choices.

⁶² 47 U.S.C.A. § 151; 47 U.S.C.A. § 303(g); *see also* Preamble to the Telecommunications Act of 1996.

⁶³ *Flint Ridge Development Co. v. Scenic Rivers Ass'n. of Oklahoma*, 426 U.S. 776, 788 (1976).

⁶⁴ Avatar Report § 1.3, page 1-3.

Second, Avatar offers its recommendations for specific actions while at the same time acknowledging that the science is not sufficiently clear to support such actions. It seems that Avatar was so driven to make recommendations that it ignored its own caveat about the scope of its inquiry. As noted above, Avatar is correct that there are areas that need additional research, but Avatar crosses the line when it suggests the adoption of specific tower siting requirements at this time.

V. Cingular Recommendations for Future Commission Action.

Based on the record developed in this proceeding to date, Cingular has several recommendations as to appropriate action the Commission can take now to further its Congressional mandate. First, the Commission should not take action for the sake of acting. The record is abundantly clear, as confirmed by Avatar, that the state of the science today is insufficient for the Commission to make policy choices or changes to its rules. The Commission should evaluate the scientific studies currently underway and make recommendations for additional needed research, but in no event should the Commission launch a premature rulemaking proceeding.

Second, the Commission should consider the additional scientific information that is presented to the Commission in other dockets, such as the paper produced by Dr. Kerlinger for AT&T Wireless in connection with the Commission's investigation of the alleged impact on endangered species by several wireless towers in Hawaii. The Commission has recently rejected a challenge to a public safety tower in Ohio by Forest Conservation Council and the American Bird Conservancy.⁶⁵ In that docket the

⁶⁵ In the Matter of State of Ohio Department of Administrative Services-Application for Antenna Structure Registration-Deersville, OH Petition to Deny-Forest Conservation Council and the American Bird Conservancy, File No. A060240, *Memorandum Opinion and Order*, DA 04-2990, Rel. Sept. 16, 2004 ("*Forest/ABC*").

Commission retained Avatar to evaluate the bird groups' claims that the Commission's existing NEPA checklist requirements are insufficient and therefore illegal. The Commission should incorporate Avatar's paper and the Hawaii papers into the record in this proceeding. Any other scientific information presented to the Commission in other dockets during the pendency of this inquiry should be incorporated as well. The Commission should base its determinations in this proceeding on the best, most current scientific information available, regardless of the proceeding in which it is presented.

Third, it is critically important that the Commission continue to process tower applications while the science develops. The Commission staff has given tower opponents virtual veto power by placing opposed tower registration applications into a regulatory "black hole." Cingular has pending before the Commission multiple applications that have not been processed by the staff because bird advocates have filed cookie-cutter oppositions to their registration.⁶⁶ There is no question that these oppositions lack merit.⁶⁷ Indeed, in

⁶⁶ See, e.g., Proposed Communications Tower Located at 4515 Winnsboro Road, Monroe Louisiana, ASR File No. A035528 (Application pending since November 20, 2003); Proposed Communications Tower Located at 176 Breston Lane, Columbia, Louisiana, ASR File No. A0357459 (Application pending since December 10, 2003); Proposed Communications Tower Located off Highway 251, Athens, Limestone County, Alabama, ASR File No. A0364024 (Application pending since February 13, 2004). The Columbia, Louisiana site is particularly egregious. On March 5, 2004, the Spectrum and Competition Policy Division granted the application a finding of no significant impact (FONSI) and issued Registration No. 1242465. Cingular promptly began construction of the tower. On April 7, 2004 Cingular received a phone call from the staff inquiring about the status of the tower. The staff was told that the tower base was complete, the equipment shelters were in place, and Cingular intended to start "stacking steel" the next day. The staff instructed Cingular to halt construction. Later in the day the staff issued a letter claiming that the FONSI and registration were "a clerical error" and that the registration was cancelled. The Application was returned to "pending" status. Despite several status inquiries regarding this unfinished tower, no action has been taken by the staff to date.

⁶⁷ See, e.g., In the Matter of T-Mobile and the Pierce Archery Proposed Antenna Tower, 8067 Maddock Road, North Ridgefield, Ohio 44039, FCC File No. 0001315120, NEPA # 42198, Call Sign KNLG796 (BTA 084), *Memorandum Opinion and Order*, DA 03-3826 (Nov. 26, 2003), in which the Commission ruled that the "Petitioners' objections are wholly without merit" (*MO&O* ¶ 2) and "Petitioners make only speculative, general allegations that antenna structures kill migratory birds, without any specific showing how this particular tower would cause harm. Similarly, Petitioners' assertions of cumulative impacts do not relate to this specific tower, but consist of conclusory statements about the proliferation of antenna structures generally." *MO&O*, ¶ 15. Unfortunately, the Commission staff stopped work on this tower for 18 months before reaching this unavoidable conclusion.

the *Forest/ABC* decision the Commission held on the merits that the claims made by the bird advocates are insufficient to block approval of a tower registration application. Because *Forest/ABC* use a “cookie cutter” approach in opposing tower registration applications, the Commission has now rejected all of the legal and policy arguments advanced by *Forest/ABC* in its opposition to the Cingular towers.⁶⁸ There is no reason why the staff cannot promptly process Cingular’s backlogged tower applications.

This staff inaction is directly contrary to the Commission’s primary Congressional directive to facilitate the rapid roll-out of wireless service to the American people. The staff inaction places speculative concerns for migratory birds ahead of the public safety, homeland security, and economic and social needs of wireless communication users. The Commission’s staff should process tower applications promptly unless and until the Commission determines that additional requirements are necessary and practical. The staff’s failure to process applications that are opposed by the bird groups, while routinely processing unopposed applications accompanied by environmental assessments that are no more detailed than the challenged applications, is contrary to the public interest and places the adversely impacted applicants at a competitive disadvantage. Cingular is prevented from expanding service to its customers while carriers that are not targeted by the bird groups are not so encumbered.

VI. Conclusion.

The Avatar report confirms that the existing state of the science regarding avian mortality at communications facilities is insufficient to draw valid conclusions regarding the reasons

⁶⁸ The Commission notes that “many of the Petitioners’ arguments are directed not at the approval of an EA for the Deersville tower under the Commission’s existing rules, but at the rules themselves. . . . These arguments are properly the focus of a rulemaking proceeding, rather than objections to individual applications.” *Forest/ABC*, ¶ 13.

birds fly into communication towers. There is no consensus on the specific tower characteristics or configurations that increase the risk of avian mortality. This shortcoming makes it impossible to consider adopting specific mitigation techniques or changes in the Commission's regulations at this time. There is an emerging scientific consensus that short (<500 foot) communications towers present little if any risk to migratory or resident birds. The Commission should encourage the USFWS to recognize this consensus and modify its interim voluntary tower siting guidelines accordingly. The Commission also should promptly process backlogged tower registration applications that are being held up because of boilerplate oppositions by bird advocates. The Commission must fulfill its Congressional mandate to facilitate the expansion of wireless communications to all Americans.

Respectfully submitted:

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s/ M. Robert Sutherland

February 14, 2005

CERTIFICATE OF SERVICE

I, Lydia Byrd, an employee in the Legal Department of Cingular Wireless LLC, hereby certify that on this 14th day of February, 2005, courtesy copies of the foregoing Comments of Cingular Wireless were sent via first class mail, postage prepaid to the following:

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
9300 East Hampton Drive
Capitol Heights, MD 20743

John Muleta, Chief
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street SW
Washington, D.C. 20554

In addition, the document was filed electronically in the Commission's Electronic Comment Filing System on the FCC website.

s/ Lydia Byrd
Lydia Byrd